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ETHNOLOGY.—*Ethnoherpetology of the Catawba and Cherokee Indians.*¹
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Interest along lines of study in the shadowy historical background out of which the natural sciences emerge from the classical age of thought has scarcely yet gone far enough to make place for the present paper. Yet to venture ahead of time because it is important to record data on the animal lore of preliterate peoples leads to inquiry into newly opened fields of ethnozoology. Like the now-recognized subject of ethnobotany, the scope of ethnozoology will deepen and broaden as it assumes a place in the curriculum of research. Ethnoherpetology indeed offers unlimited prospects for exploration into native cultures far and wide, beginning with study in the environs of Indian tribes in the Americas.

No attention has been given so far to a treatment of native faunal lore among Indians of North America which might suggest that a rudimentary native system of zoological taxonomy existed. It might have been assumed that at least some beginnings of such a system would exist among tribes of mankind so familiar with animal appearances and habits.

The purpose of the present short paper, then, is to present hitherto unrecorded data on reptilian nomenclature of two unrelated tribal groups of the southeastern United States in order to illustrate the character of such an arrangement of reptiles based upon observation of descriptive details and habits.²

¹ Received April 26, 1946.

² Some of these ideas were touched upon in a short article presenting data on northeastern Algonkian reptile identities and reptile lore (F. G. SPECK, *Reptile lore of the northern Indians*, Journ. Amer. Folklore 36 (141). July-Sept. 1923). See also F. G. SPECK and E. S. DODGE, *Amphibian*

The two tribes from which the data here presented have been taken are the Catawba of the piedmont in northwestern South Carolina, near the border of the Upper and Lower Austral Zones, and the Cherokee of the mountains of western North Carolina, in the Transitional Zone. The reptilian biota of these regions differs considerably as the listing shows. The linguistic and cultural backgrounds of the two peoples are decidedly unrelated; the Catawba constitute a southeastern branch of the Siouan linguistic family; the Cherokee fall into the Iroquoian linguistic stock.

The Catawba material, I may say, is the accumulation of facts relating to reptiles and amphibians recorded during some years of continued but intermittent field work with the last four Indians who used the Catawba language. Chief Sam Blue was the principal source consulted in the revision of name identities of reptiles written down from dictation of older informants now deceased. A recent return-trip to the region gave an opportunity to review and revise the data previously obtained and to prepare

and reptile lore of the Six Nations Cayuga (Journ. Amer. Folklore 58 (230). 1945).

In the preface to K. P. SCHMIDT and D. D. DAVIS's *Field book of snakes of the United States and Canada*, p. XI, 1941, the authors review the present situation in respect to reptile study: "In the past, study of American snakes has dealt chiefly with taxonomic problems. We believe that as purely taxonomic problems become less productive, interest will gradually shift to topics of broader biological interest. With this in mind, we have placed particular emphasis on life history, habits, behavior, and ecology. Description has been restricted to what is necessary for identification of specimens." Here also the subject of ethnoherpetology is sensed as a possible line of investigation.

the list for final publication.³ It is hardly possible now that more complete information along these lines can be expected, since the language and culture of the Catawba have become obsolete.

Departmental cooperation in projects of research in the Cherokee Nation resulted in the Cherokee material which is prepared from notes made in the field on the same occasions while collecting culture elements of the Eastern Cherokee. A number of informants were consulted, especially West Long of the Big Cove settlement. The notes have been extended by additions contributed by John G. Witthoft, University of Pennsylvania, who accompanied me on several trips of investigation.

An element of classification is evident in the material. Aside from the use of descriptive terms to denote the creatures some terms refer to ideas of pure folklore. But some remark may be made concerning the sources of reptile and amphibian names, both scientific and popular, in the European tradition of taxonomy. The naming system for reptiles (and the same may be said for other animal forms) among Catawba and Cherokee reminds the nature historian of the technical naming principles established by Linnaeus and others who long ago set the tradition of taxonomy by using Greek and Latin definitives in zoological classification.⁴

³ Acknowledgements are made to the Faculty Research Fund, University of Pennsylvania (Grant 570), and the Field Research Fund in Anthropology for 1945, for support of the undertaking.

⁴ Compare, for instance, the following scientific reptile designations, translated from Greek and Latin into English, with the Indian terms in the lists: *Crotalus horridus*, "rattler bristling"; *Sistrurus miliarius*, "rattletail containing a thousand"; *Agkistrodon piscivorus*, "fish-hook tooth fish-eater"; *Heterodon contortrix*, "different-tooth twister"; *Coluber constrictor*, "serpent squeezer"; *Diadophis punctatus*, "crowned-snake spotted"; *Lampropeltis getulus*, "shining-shield African"; *Masticophis flagellum*, "whip-snake whip"; *Elaphe guttata*, "deer spotted"; *Liopeltis vernalis*, "smooth-shield springtime"; *Opheodrys aestivus*, "tree-snake summertime"; *Thamnophis*, "thicket-snake"; *Eutaenia*, "beautiful band"; *Natrix sipedon*, "swimmer tube-tooth"; *Cemophora coccinea*, "muzzle-bearing scarlet."

I must acknowledge the aid given me in tracing sources and meanings of these terms by Dr. W. W. Hyde and Miss Anna K. Stimson, of the Univer-

The correspondence, indeed, between science and folklore in the naming of animals seldom evokes even passing thought among those who habitually use them, for most of us have blindly taught ourselves to take our own word traditions for granted in the quaint logic of science without seeking for their derivations.

In Indian systems of animal classification we find that groupings are usually determined by external features and habits of motion rather than by morphological distinctions. So the Catawba would insist that the whale is a fish as firmly as the biologist would deny it.

The tribal sources of observation from which nomenclature is drawn are only occasionally alike; the differences are due to differences in the cultures of Catawba and Cherokee, ethnic groups possessing unrelated languages and legendary heritages, and to their inhabiting different biotic zones.

CATAWBA REPTILE LIST

I. *The Snakes*

An essentially simple twofold classification of reptiles seems to have been achieved in the thought process of the Catawba which resulted in the naming of forms by groups embraced under classifying denominatives. Roughly compared with the taxonomy of biology one group of the class Reptilia may be correlated with the subclass Chelonia, designated in Catawba by the term kayá ("turtle" in free rendering), another with the subclass Crocodylia by the term hi, "alligator." The category of reptiles corresponding to the order Ophidia we find de-

sity of Pennsylvania. I have also made use of E. C. JAEGER, *A dictionary of Greek and Latin combining forms used in zoological names*, Baltimore, 1931, and D. S. JORDAN, *Manual of the vertebrate animals*, Yonkers-on-Hudson, 1929, for the same purpose.

To Dr. R. M. Stabler, Department of Zoölogy, University of Pennsylvania, I am indebted for critical reading of the material as presented and for his comments on its arrangement. By his advice as a taxonomist I have not included names of subspecies or authors of descriptions in the listings of identities. The nomenclature follows L. STEJNEGER and T. BARBOUR, *A check list of North American amphibians and reptiles*, Cambridge, 1933.

noted by the term ya, "snake" in general. (Without digressing from the topic of reptiles at this point, it may be noted incidentally that group designations include other classes of the faunal realm, tɕu, "insect"; yi, "fish"; kutɕin, "bird"; and so on—all generalizing collective terms.)

The Catawba binomial system of phylogeny then drops to a designation for species by the use of specific modifiers of the generic term ya, as the following list will show. One might add that a possible recognition of subspecific characters is vouched for by use of the modifiers tɕ, "little," and tɕrɔ, "big," as suffixes to some specific names.

The list of 17 specific snake names known to informants is as follows⁵:

1. ya swaʔ?, "snake chief," king, or greatest, rattlesnake (*Crotalus horridus*). The snake of paramount importance in the nature lore of the Catawba, and the Creeks as well, who denote it similarly (teft'o mi'k'o, "snake chief").

2. ya mantúgrere, "snake home in ground," ground rattlesnake (*Sistrurus miliarius*).

3. ya pa'kata tcesá, "snake narrow-necked," copperhead (*Agkistrodon mokasen*).

4. ya yámure, "snake staying in water," water moccasin (*Agkistrodon piscivorus*).

5. ya hi' ska' kwátcere, "snake head spreads," hog-nose snake (*Heterodon contortrix*). ya wɪ túp', "snake spotted."

6. ya wákciye, "snake black," black racer (*Coluber constrictor*).

7. ya tɕ wákciye, "snake little black," ring-necked snake (*Diadophis punctatus*). The Catawba regard this reptile as an immature form of the black racer.

⁵ Herpetological identification was checked by use of excellent color plates in *The snakes of Maryland*, H. A. Kelley, A. W. Davis, H. C. Robertson, The Natural History Society of Maryland, Baltimore, 1936.

The symbols used in writing native terms in both languages of the notations are those customarily adopted by students of American linguistics. It may be noted for the convenience of those who are not concerned with details of phonetic transcription that the following letters differ from their use in English orthography, their equivalents being: *c* for English *sh*, α (Greek alpha) for the *u* sound of English *but*, ϵ (inverted *e*) for the almost silent *e* in English *her*, a cedilla beneath a vowel to denote nasalization, the symbol ? for the glottal stop, ' to indicate an aspiration after a vowel or consonant, and the raised period to show lengthening of vowel. ɔ (reversed *c*) is used in Cherokee to denote *aw* as in English *law*.

8. ya migráhære, "snake chief," king snake (*Lampropeltis getulus*). The specific term is a synonym of the term given for rattlesnake. To the informant this is a "boss of snakes." The term ya suré, "snake wild," was also given for this animal by Sally (Brown) Gordon in 1928.

9. ya tirfe ha, "snake thunder present," milk snake (*Lampropeltis triangulum*). The identification of this species was uncertain to the informant.

10. ya yispá hɛ, "snake whip," coachwhip (*Masticophis flagellum*). The informant, Sam Blue, had heard that this creature could "stand up and whistle!"

11. ya nəmotúksa hɛ, "snake in ground stays," corn snake (*Elaphe guttata*).

12. ya tɕ nəmómusàre, "snake small in ground stays" (*Cemophora coccinea*).

13. ya wədésəna, "snake cow male" (or "bull snake" locally), gray rat snake (*Elaphe obsoleta confinis*). This form was not well known to the informant.

14. ya waŋká', "snake green," rough green snake (*Ophiodryx aestivus*). ya ya'á', "snake (pertaining to) woman." The second name was obtained from Margaret Brown in 1920.

15. ya yəmaterá, "snake garter," garter snake (*Thamnophis sirtalis*). The name applied to this form is manifestly of local English origin.

16. ya yayamómúre, "snake in water lies" (*Natrix sipedon*).

17. ya yátce"mowàne, "snake in branch (creek) stays," queen snake or leather snake (*Natrix septemvittata*).

OTHER CREATURES CLASSIFIED AS SNAKES BY THE CATAWBA

1. ya kat'k'at'hære, "snake jointed," glass snake (*Ophisaurus ventralis*). The modifier here is equivalent to "breaks into pieces." The "glass snake" is included in the list because of its snakelike character in Catawba esteem. It was not familiarly known to the informant who had encountered it only rarely. Said he, "Unless the pieces of its body are thrown into the river or burned, it will come alive again."

2. ya ciyé, "snake (in) mud," eel.

An attempt to identify other species known to literature of the region did not yield results with Indians questioned even with the help of the color plates and descriptions of appearance and habits.

REPTILES IN CATAWBA FOLKLORE⁶

Snake lore among the Catawba includes reference to the fabled hoop snake (*ya tərá tərá?* here, "snake rolling"). Chief Sam Blue when questioned about the creature claimed to have seen it himself, and he said it had a brownish color. The legend of its existence is evidently one derived from white neighbors with whom the Indians have been associated for over a century.

The folklore of reptiles is unduly meager in the surviving body of tradition among the Catawba. Fables relate how a monster serpent dwelt in a turgid eddy of the Catawba River near one of the ancient villages. The serpent killed people by sucking blood from their necks or from under their arms. Another child-killing snake monster of the river constricted its victim. The symbolism of the snake in tribal tradition is that of enmity, and the people usually kill snakes for this reason when they are encountered. The poisonous species are categorically denoted by the term *ya sigrí*, "snake mean, polluted, unfit, spoiled, dirty," according to the divergently "unfavorable" meaning indicated by the adjective modifier.

Several snake taboos are to be noted as told by Mrs. Susan Owl and Margaret Brown a number of years ago.

To narrate stories after dark is to invite annoyance from snakes. If a snake hears a person relating tales it will lie in wait in the path for him or her.

Likewise, if a person mentions aloud his business or intentions regarding travel, a snake may hear it and lie in wait for him. Consequently the wary are advised when about to travel anywhere to speak of going "day after tomorrow" instead of "tomorrow," in order to deceive the snake. Indeed "if he knows where the traveler is going he will try to lie in wait for him!"

⁶ Few writers in this field have touched upon the folklore of snakes, and then only to deal briefly with popular beliefs of the American countryside among which the "hoop snake," "milk snake," "glass snake," "swallowing of young" stand out. (See K. P. SCHMIDT and D. D. DAVIS, *Field book of snakes of the United States and Canada*, 1941, for a section on Folklore of Snakes (pp. 7-10) and references to K. P. SCHMIDT and R. V. MEDDEN for more extensive reference to essays on snake lore.) In an article, *The hoop snake story*, K. P. SCHMIDT quotes references to the hoop-snake legend in the South and suggests a Negro origin for it as a possibility (*Nat. Hist.* 25 (1): 76-90. 1925).

The story is told of an old man years ago who had a watermelon patch visited by girls who would steal them. To keep them out he put white-oak splints around the field and caused them to be transformed into snakes when intruders came.

In Catawba tradition, as far as a conclusion can be reached, all snakes are maleficent, and that means potentially poisonous in their relationship to man. Whether the baneful influences are exerted through spiritual or physiological mediums (fangs or teeth) is not considered to be precisely essential to personal protection and welfare. Only in the case of death and disablement resulting from the bite of rattlesnake, moccasin, or copperhead is observation of cause and effect specified. The hog-nose snake is equally feared, and, in the estimation of some of the people, others as well. Hence snakes may inflict injury and death, through tongues or teeth in direct contact, and inflict sickness, misfortune, or ill fate through mysterious toxic agencies of a spiritual nature. These conceptions are vaguely garbled and vary individually as might be expected among folk whose minds are trained to reason by tradition drawn from two realms, the real and the unreal.

II. The Turtles

The four reptiles of this category recognized by the Catawba are all denoted by the classifying term *ka* or *kayá*, "turtle." The latter term may have semantic relationship with that for snake (*ya*).

1. *kái*, "turtle" (or possibly "scratcher"), box turtle (*Terrapene carolina*).

2. *kayá*, "turtle snake" (locally, cooter terrapin), members of the genera *Malaclemys*, *Chrysemys*, and *Pseudemys*, without distinction.

3. *kayá skáteró*, "terrapin head big," snapping turtle (*Chelydra serpentina*).

4. *kayá sãmí?* "terrapin soft," soft-shelled turtle (*Amyda ferox*). The flesh of this creature is prepared and eaten by the Catawba.

The attempt to identify with precision the native names of the musk and mud turtle proved unsuccessful. The following names were taken down as applicable to one or the other:

1. *ka sãmí?*, "turtle soft," musk turtle, or stinkpot (*Sternotherus odoratus*).

2. *kaya tóire?*, "terrapin mud (?)," mud turtle (*Kinosternon subrubrum*), also a variant

term *ká'í'e* applied loosely to both creatures at different times by Mrs. Owl (1920) and Margaret and Sally Brown and Sam Blue in later years.

III. The Lizards

The Catawba denote the saurians by the collective term *wapiré?*, "lizard"; one hardly capable of analysis at present unless the primary element *wap* may have reference to something round in form. Three true lizard forms are recognized as follows. Salamanders are included with them in the Catawba arrangement.

1. *wapiré?* *hiská səká're*, "lizard head red" (locally scorpion), blue-tailed skink (*Eumeces fasciatus*). The name is derived from the reddish head of the fully adult male. The young phase of the reptile with striped back and blue tail was known to the informant correctly as an age phase of the same creature. This knowledge seemed noteworthy for Indians since it is not usually so understood among surrounding whites.

2. *wapiré?* *wá'ka?*, "lizard green," American chameleon (*Anolis carolinensis*). The Catawba believe the chromatic stages of the animal to be due to its need to simulate the color of its immediate background.

3. *wapiré?*, "lizard," swift or fence lizard (*Sceloporus undulatus*). The tailed amphibians are also included in the nomenclature of lizards, owing to their lizardlike form of body.

4. *wapiré?* *yátc'i're*, "lizard (in) branch (of river or spring)" (*Desmognathus fuscus auriculatus*). Found abundantly on the reservation in the "branches" of Catawba River in the usual haunts under stones, and the informants gave the same native name to all the other varieties known within their range.⁷

IV. The Frogs and Toads

In the native system of zoonomy there seems to be no grouping of the suborders of the Anura, there being but one inclusive term for the family Bufonidae and another for the Hylidae and Ranidae. The distinction usually observed is that of size, which is indicated by suffixes denoting "large" and "small."

1. *ará'rai*, frog, specifically bullfrog (*Rana catesbeiana*), an inclusive term for all forms of the genus *Rana*. It is onomatopoeic, a native

reproduction of the sound impression of the voice of *Rana*, although it referred specifically to the green frog (*Rana clamitans*) as heard in 1946 in the swamps of the reservation. Chief Sam Blue mentioned a belief among the Catawba that when the frog's voice is heard "fish bite well" (*ará'rai kauhateu're yí'sóhewe*).

2. *ka're*, frogs known as "knee-deep"⁸ (*Hyla*, *Acris*, and *Pseudacris*, undifferentiated).

3. *watekamú*, "(?) suck," toad (*Bufo*, species undifferentiated). Why the same name should apply to the leech remains unexplainable.

An instance of folk belief in linkage by metamorphosis between *Bufo* and *Rana* was given by Margaret Brown, an aged Catawba woman who died in 1922. She related how the people believed that the toad laid eggs "which turn into tadpoles and after a certain length of time these turn into bullfrogs."

CHEROKEE SNAKE NAMES AND IDENTITIES

The following list of 14 species with their Cherokee native names and explanations represents the knowledge possessed by Will West Long, a linguistic purist and traditionalist of the Big Cove settlement, Qualla Reservation of the eastern Cherokee, Swain County, N. C. Big Cove is an elevated basin (above 3,000 feet) at the foot of the main ridge of the Great Smoky Mountains. In the lower levels of the reservation, however, the Indians are acquainted with more reptilian forms, and such names and identities are added from notes made there recently by John G. Witthoft.

West Long, who knew only the forms in his own district, by his own testimony was unacquainted with the water moccasin, the whip snake, the scarlet snake, the "glass snake," and even the milk snake. Therefore for them he had no native names that could be definitely assigned to species. We found no authoritative sources to check occurrences of these creatures in the district of the Big Cove to which the list applies. A complete local collection of forms found there would be necessary to settle this point of distribution in the immediate neighborhood. West Long, furthermore, disclaimed

⁸ An explanatory folk narrative told by Chief Sam Blue relative to the locally popular name "knee-deep": "Said the bullfrog on the edge of the swamp, 'Come on in!' Another frog cried out, 'How deep?' The tiny peepers called out, 'knee deep!'"

⁷ Questioning informants about the occurrence of the mudpuppy in Catawba River revealed that it was not known to the Indians of the reservation.

knowledge of the legendary hoop snake. Witthoft, however, obtained a reference to it from other sources.

The lack of correspondence between the Catawba and Cherokee snake lists is accounted for, in part, by the differences in topography of their respective habitats. Certain forms are not known to the mountain regions. Moreover, the two peoples belong to unrelated families of speech (Catawba is of the Siouan linguistic stock, Cherokee is Iroquoian), whence the total nonrelationship of their reptilian terminologies.

In presenting the material from the Cherokee here no attempt is made to include reference to reptile lore of the tribe. The extent and wealth of such matter would require a comprehensive monograph, which would cover much of the religious and ceremonial life of the people. Reptiles, indeed, play a highly important role in Cherokee tradition.

Where the technical designations for snakes correspond with those in the Catawba list they are not repeated.

The Cherokee generic term for snake is *i'natá*.

1. *udzó natá'*, "now you see snake," rattle-snake.

2. *kádzét'i'*, "rattle," ground rattlesnake. The term is identical with that for the gourd rattle carried in the hand of a dance leader.

3. *w'ó təgi ask'o'li'*, "brown head," copper-head. Also *tsiúk tadzistaí*, "with fire eye."

4. *ki'zi'dzulí'*, "feces has in it," hog-nosed snake. The term is not explainable in origin beyond the possible idea that the forcible hissing of the creature was caused by an excess of substance in its abdomen producing the described condition.

5. *ka'lek'gí'*, "he climbs up a tree," black snake.

6. *ka'lek'gí at'á'*, "blacksnake young," ring-necked snake. This is regarded as a young phase of the black snake.

7. *wuckəlihá i'nat'ʔənihé*, "boss snake king," king snake (informant, Amanita Tramper). Neither the animal nor its name was known to West Long.

8. *i'nat' ugə'wiyahj*, "snake king," milk snake (questionable).

9. *gi'gé i'natá'*, "red snake," corn snake.

West Long had encountered the species only once and was not certain of its identity.

10. *uk'suhí'*, "substance in the eye," mountain blacksnake. West Long could offer no explanation for the origin of this name.

11. *selikwóyí'*, "green," smooth green snake (doubtful) and rough green snake.

12. *odalí'ak'tiyá'* (*odalík' tiyá*, shortened form), "mountain guard," yellow-striped chicken snake. The name describes the habit of the creature to lie atop the mountain, among rocks it is said, to watch the movements of other animals. The common idea is that it acts as a guardian observer of life on the mountain. The same term is applied to the garter snake through its similarity in stripes to the preceding. Observation has apparently been lax among the Cherokee in regard to differences in appearance and habit of these reptiles. Some doubt rests in the identity of the 4-lined chicken snake referred to.

13. *kənégwədí'*, "goes underground and pushes soil up," water snake and queen or leather snake. The term is general for all phases of the genus *Natrix*. Color variations are denoted by descriptive terms.

14. *i'nat' at'í' kalaqskí'*, "snake pottery breaking," worm snake (*Carphophis amoena amoena*). Explanation of this name is beyond the ability of anyone questioned regarding its application. It was stated that if the worm snake is placed on the head of any one infested with lice the vermin will disappear.

Jimsie and Tahquette Wallace, of Adam's Creek, near Birdtown, on the reservation about 16 miles from the Big Cove and at a lower altitude, recognized the following varieties (notes contributed by J. G. Witthoft):

15. *djogés aktiyá*, garter snake and red-bellied brown snake.

16. *toledá*, glass snake.

17. *onegast əniistí'*, "hoop snake." There are said to be two varieties, neither of which the informants have seen. They are somewhat skeptical about the existence of this snake but say it may have existed in the lowland environment that some of the Cherokee formerly inhabited.

18. *waskatí'*, milk snake.